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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,428	10/30/2003	Benno Knauer	0775/00004	6779

7590 02/25/2004

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EXAMINER

CHEUNG, WILLIAM K

ART UNIT PAPER NUMBER

1713

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/696,428	Applicant(s) KNAUER ET AL.	
	Examiner William K Cheung	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/327,963.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of Preliminary Amendment filed October 30, 2003, claims 1-7 have been cancelled. Claims 8-19 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 8-13, 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (US 5,753,191).

*The invention of claims 8-13, 16-18 relates to a process for **polymerizing ethylenically unsaturated monomers in the gaseous phase**, wherein the process is carried out in a **gas-phase fluidized-bed reactor** comprising a **reactor space (1)** in the form of a **vertical tube**, a **calming zone (2)** adjoining the upper part of the reactor space, a **circulated gas line (3)**, a **circulated gas compressor (4)**, a **cooling apparatus (5)**, a **gas distributor plate (6)** which forms the lower boundary of the reactor space and, optionally, a flow divider (7), wherein the **gas distributor plate (6)** has a plurality of gas flow orifices (8) whose outlet sides are widened conically.*

Yamamoto et al. (Figure 1 and 2; col. 13-18, examples 1-12) disclose a process for polymerizing ethylenically unsaturated monomers in the gaseous phase in a fluidized

bed reactor comprising a gas distributor plate having a plurality of gas flow orifices (8) whose outlet sides are widened conically. Since a fluidized bed reactor by standards has a reactor space (1) in the form of a vertical tube, a calming zone (2) adjoining the upper part of the reactor space, a circulated gas line (3), a circulated gas compressor (4), a cooling apparatus (5), a gas distributor plate (6), the examiner has a reasonable basis that these recited features are inherently possessed in Yamamoto et al.

Yamamoto et al. contain all the limitation of claims 8-13, 16-18. Therefore, claims 8-13, 16-18 are anticipated.

4. Claims 14, 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamoto et al. (US 5,753,191).

Yamamoto et al. (Figure 1 and 2; col. 13-18, examples 1-12) disclose a process for polymerizing ethylenically unsaturated monomers in the gaseous phase in a fluidized bed reactor comprising a gas distributor plate having a plurality of gas flow orifices (8) whose outlet sides are widened conically. Since a fluidized bed reactor by standards has a reactor space (1) in the form of a vertical tube, a calming zone (2) adjoining the upper part of the reactor space, a circulated gas line (3), a circulated gas compressor (4), a cooling apparatus (5), a gas distributor plate (6), the examiner has a reasonable basis that these recited features are inherently possessed in Yamamoto et al. In view of the substantially identical construction of the fluidized bed reactor and plurality of the

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conical orifices of the gas distribution plate of Yamamoto et al. and the presently claimed invention, the examiner has a reasonable basis to believe that the pressure drops as claimed in claims 14 and 18 are inherently possessed by Yamamoto et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (US 5,753,191).

*The invention of claim 15 relates to the process of claim 8 wherein the diameter of the gas flow orifices is from **2 to 5 mm at their narrowest point**.*

Set forth from paragraph 4 of instant office action, the process of claim 8 and the process of Yamamoto et al. are very similar.

The difference between the invention of claim 15 and Yamamoto et al. is that Yamamoto et al. are silent on that the gas flow orifices is from 2 to 5 mm at their narrowest point.

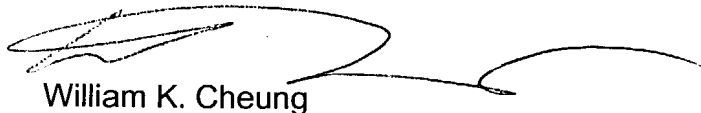
Yamamoto et al. (col. 14, Table 2) disclose that the narrowest orifices of the gas flow distributor ranges from 8 to 50 mm thereby establishing that the diameter of the narrowest orifices is a result effective variable of the disclosed process. In view of MPEP 2144.05, since Yamamoto et al. have established that the diameter is a result effective variable, it would have been obvious to one of ordinary skill in art to use the result effective "diameter" of the orifices in Yamamoto et al. as a variable to perform a routine optimization process to obtain the invention of claim 15. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'William K. Cheung', with a long, sweeping horizontal line extending to the right.

Patent Examiner

February 19, 2004